

fiscal year 2006

excellence...
in our people, work, relationships, environment.



06





To SHA Employees, Customers & Partners

Every day thousands of Maryland commuters begin and end their day using The State Highway Administration's (SHA) highway system. It is the perseverance, dedication and hard work of SHA employees that makes this possible. For this reason, I thank all SHA employees for their individual contribution towards meeting and sustaining our organization's goals. It is truly an honor to be part of such a great organization.

Looking back, fiscal year 2006 was filled with both noteworthy milestones and difficult tasks. Despite the challenges that we faced along the way as an organization, we finished the year successfully. For instance, we delivered a capital program of \$1 billion that includes \$580 million of Federal Transportation funds leveraged for new and improved highways and bridges on the 16,700 lane miles of SHA roads. Two milestones were the opening of the first span of the Woodrow Wilson Bridge in summer 2006 on-time and within budget; and the start of construction on the Intercounty Connector, which established a national standard for environmentally sensitive design, stakeholder coordination and innovative construction.

Equally important are the SHA initiatives that strive to protect and enhance Maryland communities. For example, we continued to be a national leader among state highway departments in many cutting-edge programs such as context sensitive design and design-build project delivery. We continued to exceed our expected responsiveness during snowstorms by maintaining clear roads during a variety of challenging storms. Our highways continued to be recognized as the best monitored in the mid-Atlantic region. Finally, we maintained a "B" customer satisfaction rating in spite of a smaller staff.

All of this is possible because of our collective commitment to organizational excellence. We have implemented a performance-based management approach that focuses on increasing our capacity to be excellent in the areas of leadership, business planning and performance measurement, process improvement and management, customer communications, service and satisfaction and workforce planning and development.

In Fiscal Year 2007, SHA looks forward to sustaining progress in reducing injuries and fatalities on Maryland roads. We will continue to maintain technical expertise in spite of retirements and hiring challenges. We are committed to operating in a fiscally responsible manner and containing the high cost of construction materials and complex project construction. We will continue to make strides in managing highway congestion to maintain safety and mobility. Finally, we recognize the diverse needs of our citizens; that is why we will continue improving access to SHA roadways in accordance with the requirements and intent of the Americans with Disabilities Act (ADA).

Fiscal year 2007 is exciting and challenging, with the start of a new administration, and a renewed emphasis on performance measurement and efficiency improvements. I look forward to our achieving success together.

Neil J. Pedersen, SHA Administrator

Our Values, Our Mission, Our Vision

SHA's Mission

To efficiently provide mobility for our customers through a safe, well-maintained and attractive highway system that enhances Maryland's communities, economy and environment.

SHA's Vision

To provide our customers with a world class highway system.

SHA's Values

State Highway Administration employees embrace values that complement our vision and mission. These are grouped into four categories:

We Value Excellence in Our People:

SHA employees are energetic, loyal, and supportive of one another. We encourage each other to reach our highest potential and are committed to gaining the skills, knowledge, and training to achieve our goals.

We Value Excellence in Our Work:

As a team, we strive to know the needs of our internal and external customers. We fulfill commitments in a timely and accurate manner, using resources responsibly, and observing all legal, moral, and ethical standards.

We Value Excellence in Our Relationships:

We value each other's opinions and ideas as well as those of our customers. We earn the respect and trust of our internal and external customers through fairness, honesty, integrity, and open communication. We accept responsibility and are accountable for our performance.

We Value Excellence in Our Work Environment:

SHA provides a professional environment that is committed to putting the safety of its people and customers first. We strive to continually improve the workplace by rewarding accomplishments and encouraging employee involvement at all levels of the organization.

Acronym Glossary	ii
Overview of State Highway Administration	1
Excellence in Our People and Our Projects	3
Highway Safety	7
Mobility and Congestion Relief	11
System Preservation and Maintenance	15
Efficiency in Government	19
Environmental Stewardship	25
Customer Communications, Service and Satisfaction	29
Performance Excellence at SHA	32

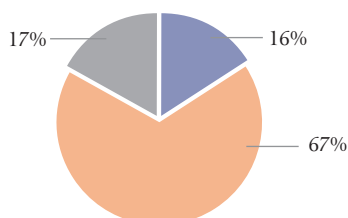
Acronym Glossary ii

With so many projects, plans and initiatives in the works at SHA (or rather, the State Highway Administration) we sometimes toss off acronyms as if everyone automatically understands what we're talking about. Here's a guide to some of the terms you'll see on the following pages.

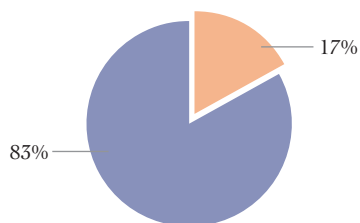
AAH	Adopt-A-Highway
AASHTO	American Association of State Highway and Transportation Officials
ADA	Americans with Disabilities Act
AHPS	Automated Hauling Permits System
AMBER	America's Missing: America's Broadcast Emergency Response
CHART	Coordinated Highways Action Response Team
CVIEW	Commercial Vehicle Information Exchange Window
CVISN	Commercial Vehicle Information Systems and Networks
DUI	Driving Under the Influence of drugs or alcohol
FHWA	Federal Highway Administration
ITS	Intelligent Traffic Systems
LEP	Limited English Proficiency
MAA	Maryland Aviation Administration
MHSO	Maryland Highway Safety Office
MOVE	Mature Operators Vehicular Education
M-PEL	Maryland Product Evaluation Listing
MSP	Maryland State Police
NPDES	National Pollution Discharge Elimination System
OOA	Office of Administration
OMT	Office of Materials Technology
RSA	Roadside Safety Audit
SAH	Sponsor-A-Highway
SHSP	Strategic Highway Safety Plan
SIS	Stepping Into Success
SOC	Statewide Operations Center
TOC	Traffic Operations Centers
VMT	Vehicle Miles Traveled

Roads on SHA System (by lane miles)

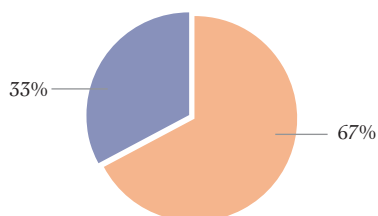
■ US Route ■ Interstate ■ Maryland Road

*Maryland Highway Mileage*

■ Local or Toll ■ SHA

*Travel on Maryland Highways (VMT)*

■ Local or Toll ■ SHA



Although SHA accounts for 17% of Maryland Highway Mileage, it caters to 67% of the total vehicle miles of travel (VMT) in Maryland

SHA owns, operates and maintains the Interstate, US and Maryland numbered roads¹ that are the backbone of Maryland's transportation system. This infrastructure forms the majority of Maryland's National Highway System, connecting local roads to major activity centers and other modes of transportation such as mass transit, the port, airports and railroads. SHA's responsibilities include managing the planning, design and construction of more than 500 projects ranging from improving accessibility to meet ADA requirements, to major projects such as the Intercounty Connector and the Woodrow Wilson Bridge reconstruction. On average, SHA will spend \$420 million in State Transportation Trust Fund dollars for capital projects, leveraging an additional \$580 million of Federal transportation funds. SHA's capital program is currently budgeted at an average of \$1.03 billion for Fiscal Years 2005-2007.

SHA is committed to improving highway safety on all roads in Maryland as our highest priority. SHA's Maryland Highway Safety Office (MHSO) administers statewide safety education programs that are widely visible such as Smooth Operator, Checkpoint Strike Force, Click-it or Ticket, Safe Routes to School and many more. SHA has proactively implemented these programs in a variety of ways, ranging from using highway message signs to raise awareness of drivers, to distributing thousands of brochures to schools, community groups, interest groups and public agencies. The recently completed Strategic Highway Safety Plan, developed through an intensive collaborative approach with virtually all stakeholders influencing highway safety issues, will be critical to further improving highway safety.

SHA roads carry 67% of traffic in the state. In order to provide the high-quality roads for which Maryland is known, SHA places an emphasis on:

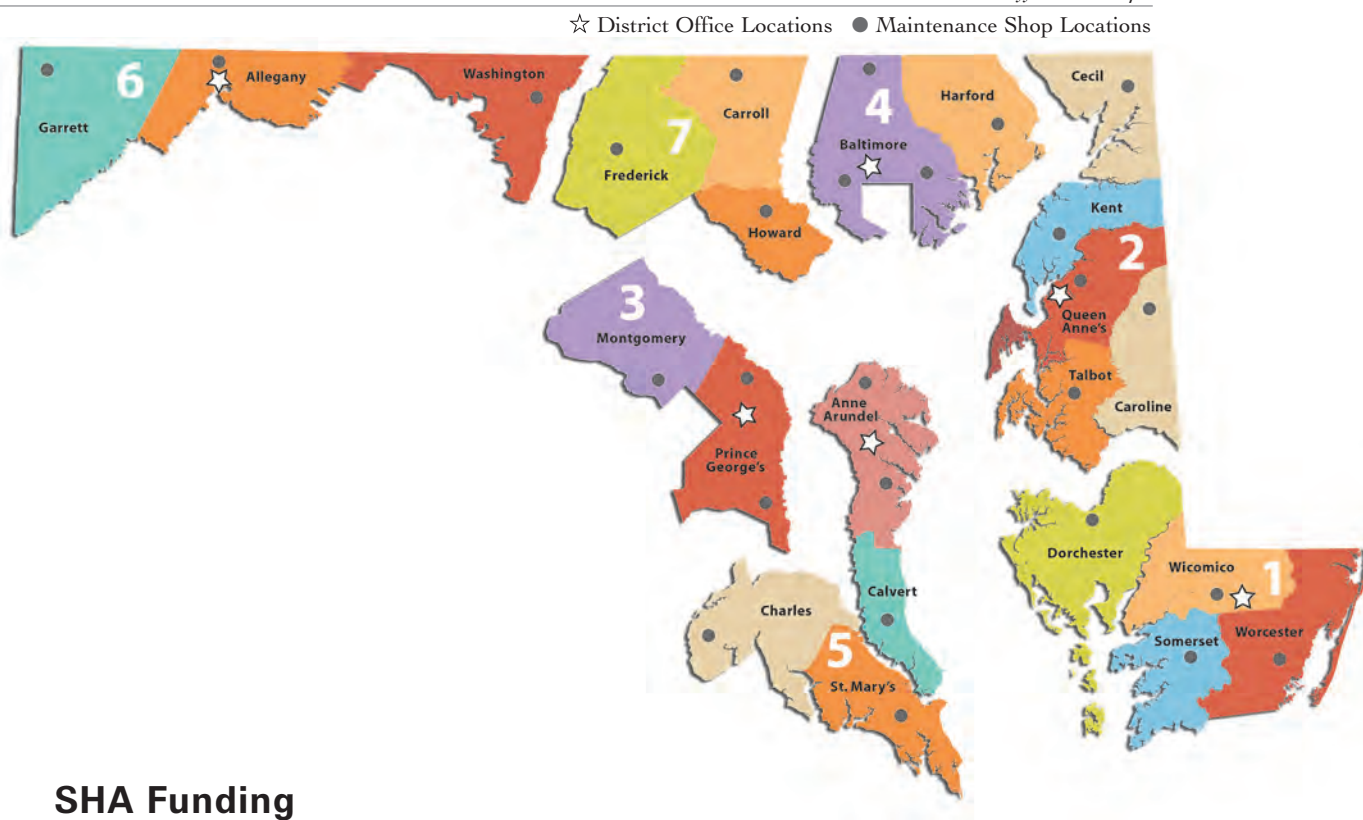
- Preserving the quality of 16,700 lane-miles of road and 2,500 bridges.
- Retaining expertise on staff to perform critical specialized functions such as design quality control and the management of traffic during emergencies, especially during snowstorms.
- Performing routine maintenance on roadway features such as signs, lights, roadway markings and litter pick-up.
- Delivering high-quality projects, working in collaboration with citizens, communities and elected officials.

¹ Except those toll facilities owned by the Maryland Transportation Authority and roads in Baltimore City

District Offices & Shops

The State Highway Administration has approximately 3,200 employees who carry out SHA's mission. SHA's headquarters is in Baltimore City, and its operations' offices and the Statewide/ Emergency Operations Center are centrally located in Hanover, Maryland near the BWI Thurgood Marshall airport. SHA has more than 40 facilities around the state, including seven engineering district offices and 28 maintenance shops. District office staff manage all highway and bridge construction contracts, perform maintenance functions such as roadway and equipment repair, snow and ice removal, and roadside management, and are responsible for traffic engineering projects and operations.

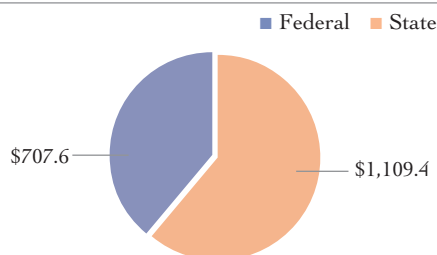
District Offices & Shops



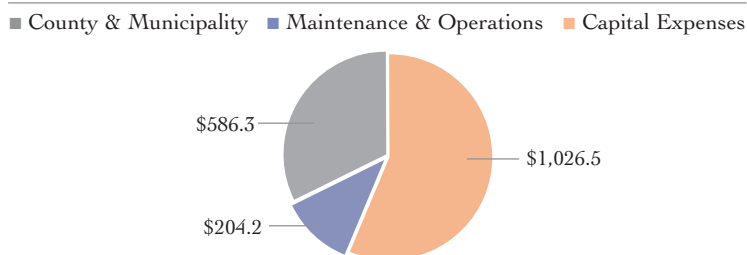
SHA Funding

Financing for SHA activities comes from the State of Maryland's Transportation Trust Fund and from Federal highway funding. SHA uses these funds for everything from planning new roads and bridges to building, maintaining and operating existing roads.

Source of Funding for FY 2006 (in Million Dollars)



SHA Use of Funding for FY 2006 (in Million Dollars)



2006 Awards

American Association of State Highway and Transportation Officials (AASHTO) Awards in 2006



Pathfinder Award-Silver – The SHA District 4 Traffic Safety Team won a silver medal for reducing accident rates in thirteen hazardous intersections in Harford County by 54%. This project won the AASHTO President’s Award in 2005.

Trail Blazer Award-Bronze – The Maryland Aviation Administration (MAA)/SHA Partnership Team was recognized for improving customer satisfaction. This team was formed to identify key issues facing SHA, the Federal Highway Administration (FHWA) and the asphalt team industry regarding the design, production, construction and maintenance of asphalt concrete materials. Since the formation of the team, the satisfaction of MAA and SHA with regard to partnering efforts has improved 5% with the greatest improvement in “Cooperation” and “Issue Resolution.” These two areas improved nearly 20% in the short time of the team’s existence.

Trail Blazer Award-Bronze – The Office of Materials Technology (OMT) Intranet News-Page Team improved the efficiency and quality of communication throughout the office. An example of cost and time savings through the creation and implementation of the OMT News Page is the fact that important articles and memos that would have to be reproduced, duplicated and distributed as paper documents are now distributed instantaneously to employees via the Intranet. Also, employees may now view scheduled meetings and events and link to relevant details in a convenient and accessible format.

Team Award – Maryland Engineering Geology Division Team addressed eight sinkholes on or near pavements and investigated as well as repaired one emergency landslide. The Engineering Geology Division provides a number of professional engineering geology services for highway design, construction and maintenance services directly related to incident management due to geo-hazards such as slope failures, landslides, sinkholes, rock falls and studies relating to abandoned underground mines.

2006 Awards

Honorable Mention

The Maryland Core Competencies Sub Team researched and developed a list of core competencies for leaders at SHA as a part of the succession planning efforts. The list of core competencies for leaders at SHA is now an integral piece of the of the Administration's succession planning efforts and is also used as a coaching tool as part of the Professional Development Plan process.

The Maryland West Traffic Team performed a Roadside Safety Audit (RSA) of MD 80, in which an independent, qualified team of auditors reports on potential safety issues. The team goal was to improve overall safety and mobility along MD 80, a highly trafficked corridor. Numerous achievements were cited, including improved sign recognition, modification of pavement markings at selected intersections, improved nighttime visibility, and improved safety and mobility of the traveling public along MD 80.

The Maryland Automated Hauling Permits System (AHPS) Team improved the hauling permits system by giving customers direct access to submit and track permits online. Bringing the Automated Hauling Permit System online has dramatically reduced processing time for permits, reduced cost for the primary customer, and increased customer satisfaction in the system.

Recognition of our People & Organization

The Best in Baltimore: Office of Environmental Design Director Charlie Adams was featured in the August 2005 "Best of Baltimore" issue of Baltimore Magazine in an article entitled "Hidden Treasure: Maximum Medians," recognizing Maryland's highway landscaping program as one of the best in the nation. Charlie and Dan Uebersax, Division Chief of Landscape Architecture, were praised for Maryland's beautiful landscaping – wildflowers and native flowers, ivy, trees and shrubs – planted on SHA median strips and along State highways.

Inter-Traffic North America Convention: On September 29, SHA received a 2005 Roadway Work Zone Safety Awareness Award in the Innovations in Technology/Methodology category at the 2005 Inter-traffic North America Convention in Baltimore. The award, sponsored by the American Road and Transportation Builders Association and the National Safety Council, recognizes organizations that use innovative technology to

*Best of Baltimore Magazine photo
— Charlie Adams*



improve safety for motorists and workers in roadway work zones. SHA won for its Work Zone Outreach Campaign, which consisted of a “License Plate Recognition System,” government outreach, training and other items. State officials distributed safety information at the Maryland State Fair, and trained 1,040 traffic managers and certified 180 traffic flaggers.

Quality Paving Awards: In February 2006, the Maryland Asphalt Association presented Quality Paving awards to two SHA projects:

- I-695 Southwest Outer Loop Widening Project from MD 144 to I-95 in Baltimore County and Interstate Resurfacing category
- I-83 Widening and Noise Wall Project from south of Seminary Avenue to south of Timonium Road in Baltimore County.

Washington Regional Alcohol Program (WRAP): In October 2005, the Maryland Highway Safety Office received a special Public Service Award at WRAP’s annual meeting in Washington, D.C. for programming designed to reduce impaired driving.

American Concrete Institute: SHA won the Excellence in Concrete Award in recognition of creative use of concrete from the Maryland Chapter of the American Concrete Institute for the York Road Bridge over I-695.

FHWA 2005 Photo Opportunity First Place Awards: In December 2005, SHA won three of nine FHWA 2005 Photo Opportunity First Place Awards. Ten states competed for these awards. These photos were published in the Spring 2006 issue of FHWA’s “Greener Roadsides” Quarterly Newsletter.

*Planted native vegetation
(wildflowers/grasses) Photo by Tim Wild*



*Planted non-native garden wildflowers
introduced into the area. Photo by Rob Kilduff*



*Photos by
Bruce Knott and Jim Jones*



OUR VISION FOR Performance Excellence at SHA

SHA's Vision for Leadership

SHA leaders establish a vision and values for the organization; set high standards and expectations for achieving that vision; empower, enable, communicate with, and motivate employees to achieve that vision through action that is both professionally sound and ethical; understand and respond to customers' needs and expectations; and are held accountable for the performance of the organization as well as themselves.

SHA's Vision for Business Planning and Performance Measurement

SHA has a business planning process that clearly defines desired outcomes through a series of customer-driven goals and objectives with performance targets that:

- Measure the progress of the organization in achieving the desired outcomes
- Are used to manage the organization including justifying budgets and staffing levels based on the results being achieved
- Are used by our employees to measure their progress towards outcomes that we, as an organization, have identified as important.



SHA's Vision for Process Improvement and Management

Improvements are continuously made to SHA's key processes in response to SHA's actual performance, as measured against planned outcomes; customer needs and expectations; innovation opportunities; the performance of benchmark organizations; and changes in legal and policy requirements.

SHA's Vision for Workforce Planning and Development

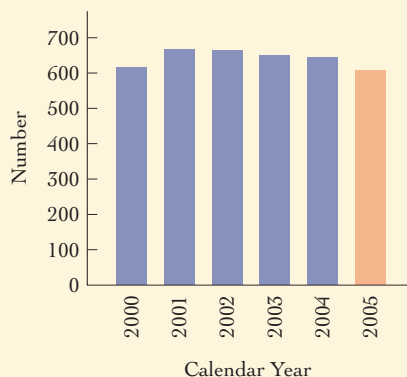
SHA delivers on its business plan through strategic staffing, succession planning, knowledge management, and formal and informal learning opportunities that support employees' pursuit of professional excellence.

SHA's Vision for Customer Communications, Service and Satisfaction

SHA listens to and communicates with its customers to determine needs and expectations, and delivers excellent services and projects. SHA will evaluate customer satisfaction through open communication and formal measurement to continually improve.

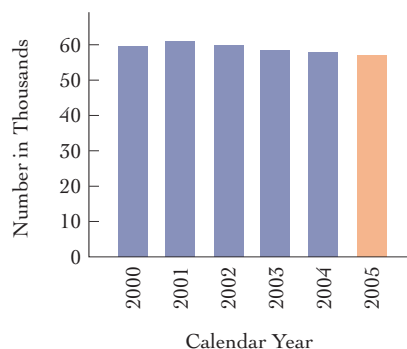
Highlights of our Accomplishments

Statewide Traffic Fatalities



- Fatalities on roads in Maryland have steadily declined to 614, a drop of 7% in the past four years. A new target of fewer than 550 fatalities by 2010 has been set.
- Injuries due to crashes on all roads in Maryland have declined 8% since 2001 to 55,303; the target has been revised to further reduce injuries to less than 50,000 by the year 2010.
- Maryland continues to have one of the highest safety belt usage rates in the nation with an observed rate of 91% in 2006, above the previously stated goal of 90%. The goal for safety belt use has been revised to achieving a 94.5% safety belt use rate by the year 2010.

Statewide Traffic Injuries

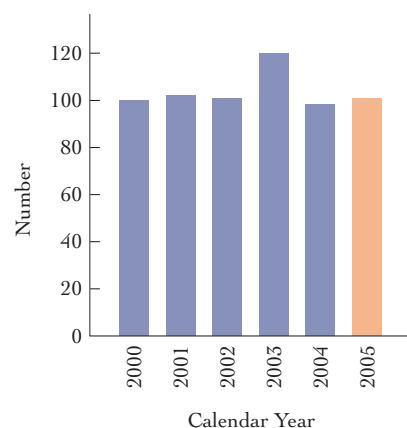


Strategic Highway Safety Plan

The Maryland Strategic Highway Safety Plan (SHSP) is a statewide, coordinated, comprehensive, traffic safety plan that provides the framework for reducing highway fatalities and serious injuries on all public streets and highways. It establishes overall goals and objectives as well as objectives and strategies within each of seven key emphasis areas. The SHSP is a working document designed to cover the years 2006 through 2010.

To generate involvement in and enthusiasm for this critical planning initiative, the state convened a Traffic Safety Summit. More than 320 participants with diverse backgrounds, interests, and expertise provided input to the development of objectives and strategies for each of the safety emphasis areas. Guided by safety data and organized into emphasis area teams, the participants generated over 168 strategies, which later were condensed by the Executive and Steering Committees to a final list of 69 priority strategies. The successful implementation of these strategies ultimately will save lives and prevent injuries.

Statewide Pedestrian Fatalities



Pedestrian Safety

- SHA partnered with the city of Frederick to create a channel for pedestrians to cross US 40 safely. Prior to this, area teens haphazardly crossed a divided highway, dodging oncoming high-speed traffic.
- SHA made progress with the Pedestrian Signal Program by installing pedestrian signals at many intersections.
- SHA initiated a 10-year program to install audible pedestrian signals to aid the visually impaired in crossing state highways.

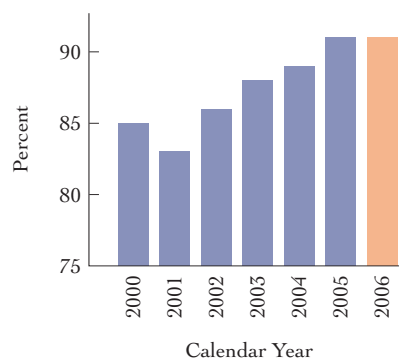
Education

- More than 1,150,000 pieces of traffic safety educational materials were distributed.
- Major press events were held in support of the Click-it or Ticket, Checkpoint Strike Force, Smooth Operator, and Maryland Remembers campaigns, as well as events to raise awareness regarding impaired driving prevention around holidays such as St. Patrick's Day and 4th of July. Other events were held throughout the year, including those for National Sleep Awareness Week, and Drive Safely Work Week.
- Overhead Dynamic Messaging Signs carried supporting traffic safety messages throughout the year, resulting in a massive number of motorists being exposed to traffic safety-themed announcements. These messages were carried in conjunction with ongoing enforcement operations for impaired driving, occupant protection and aggressive driving initiatives.
- Maryland reached out to its population of drivers age 65 or older with the Seniors on the MOVE (Mature Operators Vehicular Education) program, training more than 160 older drivers in Central Maryland as part of a pilot project. The drivers received driving self-assessments, driving skill and strategy training, education regarding occupant protection, and an overview of medication/impairment issues.
- Through a grant with the Maryland Broadcaster's Association, Maryland achieved more than 21,000 individual airplays of traffic safety messages with a total value of roughly \$2 million, a return of better than 20:1 in relation to the funds granted for the project.
- The State Fair safety display featured a wrecked SHA vehicle, (in which employee David Wiley had survived a crash) in promotion of seat belt safety.
- SHA conducted localized Work Zone Safety marketing in Baltimore and DC markets. As part of this effort, six radio public service announcements were produced and voiced by law enforcement officers, SHA Project engineers, and a child who issued the "please slow down, my mom/dad works here" message. A web promotion was also implemented as part of this campaign.

Drunk Driving. Over the Limit. Under Arrest.



Maryland Statewide Safety Belt Use



*Surviving family members of impaired
driving victims at Maryland Remembers*



Crash Prevention Program

At SHA we try to identify locations that have had a minor accident or safety problem that is not severe enough to include within our main safety program. This program is a proactive process where our goal is to prevent any location from becoming a more serious problem. Some projects that made the greatest impact toward fulfilling this program in fiscal year 2006 include:

- MD 346 at Healthway Drive, widening the road to provide a left turn lane into Atlantic General Hospital, Worcester County
- MD 589 at Showell Elementary, providing a left turn lane from MD 589 into Showell Elementary School, Worcester County
- MD 213 and Spring Street, establishing a crosswalk, ADA-compliant sidewalk and a new traffic signal to improve pedestrian safety in Kent County

Enforcement

- SHA's MHSO provided funding to Maryland's state, county and local police agencies for a variety of enforcement operations. In Federal Fiscal Year 2006, more than \$1.7 million was provided for police officers, sobriety checkpoints, and overtime patrols in a variety of programs including aggressive driving prevention, impaired driving prevention, motorcycle safety and occupant protection.
- More than 24,800 arrests were made during FY 2006 for impaired driving-related offenses. During the Checkpoint Strike Force Campaign, 160 sobriety checkpoints were conducted and more than 7,120 hours of DUI saturation patrols were funded across the State.
- Maryland continued to provide funding for the Chiefs' Challenge Campaign, in which 115 law enforcement agencies participated, resulting in more than 54,000 seat belt and child safety seat citations.
- During FY 2006, 55 municipal police departments in Maryland conducted aggressive driving prevention efforts, 36 of which participated in all four Smooth Operator enforcement waves. During those waves, more than 181,000 citations and warnings were issued to drivers by the Maryland State Police (MSP) and other Maryland law enforcement agencies.
- Maryland initiated the Alcohol Compliance Enforcement Stings Campaign in FY 2006. This project places a specific emphasis on conducting enforcement operations intended to reduce the sale of alcohol to underage persons.

Engineering

In fiscal year 2006 more than \$39 million was invested specifically in the development of safety projects, resulting in a more than 50% reduction in crash rates at those intersections. Top projects completed during FY 2006 were:

- Anne Arundel County: MD 170 at Chesapeake Club Drive, Arundel Corporate and MD 3 Business at Greenbranch Lane
- Baltimore County: US 1 at Mt. Vista Road; I-70 eastbound ramp to northbound I-695; I-95 at I-195; MD 140 to Franklin Boulevard; I-83 at Seminary Road to Timonium Road
- Cecil County: MD 273 at MD 213
- Dorchester County: MD 331 at MD 16
- Frederick County: MD 355 at Lowes Lane to New Horizon Way
- Prince George's County: MD 650 at Metzerott Road
- Washington County: MD 77 at Hippen Hill Road

In fiscal year 2006, SHA created three area-wide contracts to replace guardrails statewide. The scope of each contract was to replace old "Texas Twist turn-down" style with the end-treatments meeting current safety standards on all high priority, high speed and high volume roads. Another top project in this program was a contract to install median barriers along I-70 and I-270. Another top project entailed the installation of median barriers along MD 32 in Arundel County.

Truck Safety

SHA expanded its web-based oversize/overweight hauling permits program, issuing a record 175,000 permits in 2006. This program will soon include a mapping tool to assist customers in routing their shipments, helping to ensure safe movement of over-dimensional freight.

SHA entered into an agreement with Prepass to electronically monitor the safety and weight of commercial vehicles with transponders at the Perryville Weigh and Inspection Station on I-95. The current CVIEW system, which provides a snapshot of motor carrier information, is being revamped to comply with the new data exchange standards to provide safety and registration credentialing information to law enforcement.

CHART Emergency Response Unit at crash site



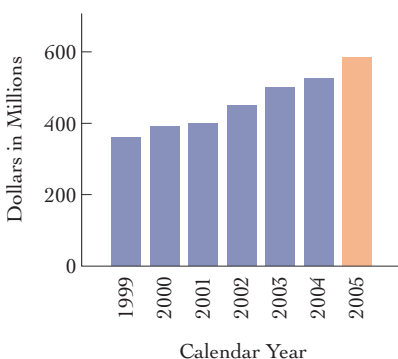
Other major accomplishments included:

- Advanced the utilization of Intelligent Traffic Systems technology in work zones
- Advanced the Pedestrian Signal Program by installing signals at intersections
- Advanced the LED signal-head replacement program
- Prepared the SHA-wide response to FHWA Final Rule requirements
- Integrated CVISN into the Motor Carrier Safety program
- Constructed more than \$100 million in safety and mobility projects in 2006
- Initiated a 10-year program for installing audible pedestrian signals to aid the visually impaired in crossing state highways

Highlights of our Accomplishments

- Driver delay costs decreased by \$566 million last year as a result of Coordinated Highways Action Response Team (CHART) activities.
- Mobility improved along arterial state highways through regular retiming of signals resulting in an average 10% reduction in delay on these roads last year.
- SHA exceeded targets for increasing pedestrian and bicycle facilities available; 28% of state-owned roads in urban areas now have sidewalks. SHA has increased the total mileage of designated bike facilities along highway shoulders from four miles to more than 400 miles since 2003.

Annual User Cost Savings (in Million Dollars)



*Real-time traffic updates to drivers using
Dynamic Message Signs*



Rising to the Challenge of Congestion Management

With a good economy, Maryland is experiencing traffic issues that are similar to other thriving metropolitan areas. The good news is that we are keeping pace at a rate better than the national average. In the past 20 years, interstate traffic volume has increased about 80%, while the number of lane-miles only increased by about 3.5%. For Maryland, traffic on state-owned roads has increased about 65%, while the number of lane-miles has increased 7%. While the rate of increase in congestion is slow, it will continue to outpace our ability to provide enough roadway capacity. The challenge for Maryland is to build needed projects as funding becomes available, continue to encourage travel by other modes of transportation, and make investments to maximize the use of the existing highway system.

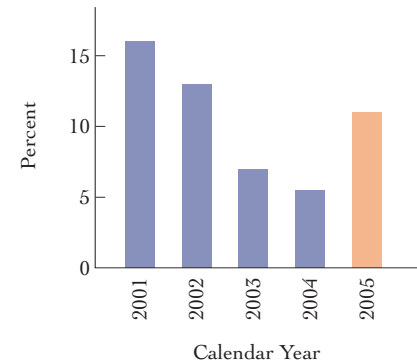
Managing Delay

The CHART program, a joint effort between the Maryland Department of Transportation and the State Highway Administration in partnership with the Maryland Transportation Authority and the Maryland State Police, blends advanced technologies with cooperative teamwork among different agencies in Maryland to provide safer, more efficient operations of the transportation system. For the year 2005, the preliminary results show a reduction in delay of 37 million vehicle-hours. This corresponds to a direct savings benefit of \$566 million.

- The number of potential incidents reduced due to CHART Operations was calculated to be 452 for 2005.
- CHART Patrols provided 23,118 motorist assists and responded to 16,604 incidents.
- Expanded CHART communications included a total of 59 workstations/centers on the CHART Network. All CHART Closed Circuit Television (CCTV) cameras were converted to a new digital video transmission and control standard.

- Procured 27 Mobile Data Terminals for SHA CHART vehicles which support Capital Wireless Integrated Network and CHART network capabilities
- Applied for the Discretionary Cooperative Agreement for Integrated Corridor Management with the FHWA in May, 2006
- Constructed 10 joint-use CCTV cameras in Harford County, Awaiting integration for all sites
- Began CHART Operations in Frederick in March 2006
- Held a Western Maryland Incident Management conference in November 2005 to develop Rural Management and Operations Strategic Plans
- Conducted a large-scale mock incident training exercise on I-70 (inside the Beltway) in June 2006

Reduction in Total Network Delay (%)



Delivering Projects That Provide Additional Capacity

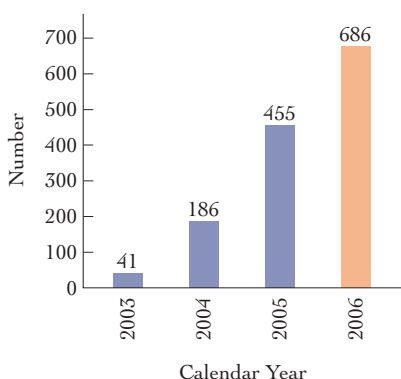
Intercounty Connector (ICC): The Intercounty Connector is a proposed new six lane toll managed facility along an 18 mile corridor between I-270 and I-95/US 1 intended to increase mobility between economic centers and improve safety. The project completed the environmental evaluation and design approval process this fiscal year and the first phase from I-370 to MD 97 was advertised for construction bids as a design-build contract.

- I-83 widening — Addition of an auxiliary lane on northbound I-83 from I-695 to Timonium Road to improve operations of the inner and outer beltway loop merge to I-83 north
- Completed Phase One of MD 43 Extended - Created a new four-lane divided highway in eastern Baltimore County from US 40 east to the first intersection
- I-695 Southwest Outer Loop Widening Project – MD 144 to I-95 opened to traffic in August 2005, eliminating chronic traffic congestion from that segment of the Baltimore Beltway
- MD 450 from Stonybrook Drive to MD 193 - Upgraded MD 450 to a multilane facility with bicycle accommodations
- US 15 Ramp from Westbound MD 26 to NB US 15 - Provided a missing turn at the MD 26/ US 15 junction
- Ribbon-Cutting Ceremonies for the following projects: US 29, MD 589, MD 404, MD 450, I-695, York Road Streetscape, I-70 (Groundbreaking)
- Advertisement of the following major projects occurred this fiscal year: MD 30, (Hampstead Bypass) and MD 5 at I-495 Interchange reconstruction and Metro Access improvements

Preliminary ICC Construction



*Miles of Designated Bicycle Routes
on SHA Roadways*



Bike Routes

At SHA we find projects to fund within the State to improve bicycle accessibility on state highways. Through these initiatives, SHA has developed a network of bike routes throughout the state. Some projects that made the most positive contribution to meeting the intent of this program in fiscal year 2006 include:

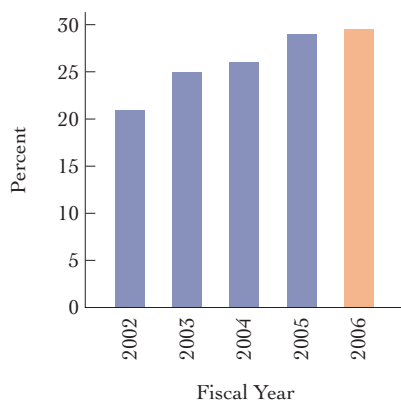
- Designated a bike route from Salisbury to Cambridge (28 miles)
- MD 27 in District 7 from Howard County line to Carroll County (20 miles)
- MD 144B to Frederick County line (13 miles)
- Reconstructed shoulder at MD 30 and resurfaced the shoulders from MD 496 to the Pennsylvania State line (2 miles)

Sidewalks – Pedestrian Safety & Accessibility

At SHA, we have a program dedicated to constructing new sidewalks along urban highways to allow for pedestrian accessibility. These projects are done at the request of local governments, which are required to maintain them once completed.

- In Montgomery County – Approximately 13,850 linear feet of bus stops at approximately 80 locations were built, which includes 625 feet of sidewalks
- Constructed 1,477 linear feet of sidewalk under the MD Retro-fit Sidewalk Program

*Percent of State-owned
Roadways with Sidewalks*



ADA Retrofit Program

Under the ADA retrofit program, SHA funds construction projects to correct ADA deficiencies not otherwise best addressed by projects.

- SHA construction staff and contractors are being trained in ADA issues relating to construction
- Began inventory of the state highway system to identify elements that are not in compliance

Expanding Park & Ride Facilities

SHA started a small program 30 years ago to provide spaces for people to meet to park and use other modes of transportation. This program now supports park-and-ride lots. Moreover, park-and-ride lots reduce wear and tear on our highway system, reduce air pollution, noise pollution and reduce the total of vehicles miles traveled (VMT). In fact, millions of VMT are reduced in Maryland because of park-and-ride lots.

- Added 200 spaces to The Harry S. Truman Ridesharing Lot in Annapolis. Before the expansion, from 480 to 680 spaces, the lot was operating over capacity;
- Built a new facility in Havre de Grace with 56 spaces and provided parking for a new MTA bus line;
- Built three new locations on the Eastern Shore each with 20 to 25 spaces. Prior to the new facilities, commuters were parked on the shoulders of roads.

Emergency Preparedness & Regional Incident Management Training

Emergency Capital Funding at SHA: This program allows expenditures to take place in a timely manner for unscheduled and unforeseen projects made necessary by emergency conditions. Typically, this program covers projects such as sinkholes, landslides, roadway or bridge collapses and slope failures. Projects of note in fiscal year 2006 include:

- A landslide repair in Garrett County on MD 36 in Mt. Savage. This project required that the main route into Mt. Savage be closed, since the roadway collapsed. The detour to get to Mt. Savage was long, circuitous and on a minor county road. It was imperative that the project be done on an emergency basis to open up the traffic flow going into the town and provide a safe route at the same time.
- A retaining wall repair in Frederick County on MD 550 near Sabillasville. This project required the repair (and in some instances, replacement) of a retaining wall as well as moving the roadway away from the retaining wall. The retaining wall was collapsing onto areas of the main roadway, which ran directly parallel with the wall.
- Developed a traffic flow model for the Eastern Shore emergency response and highway development and operations.
- Conducted a mock incident on MD 43 in October 2005 to develop a training video.
- Participated in planning and hosting the Washington Regional Incident Management Conference in January 2006.

CHART Emergency Response Unit



CHART Emergency Response Unit at Crash Site on Baltimore Washington Parkway



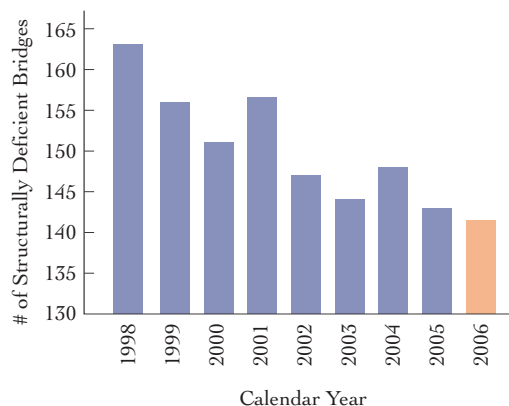
Highlights of our Accomplishments

Woodrow Wilson Bridge



- Under SHA's leadership, the first span of the new Woodrow Wilson Bridge was completed and opened to traffic.
- SHA maintained excellent snow removal performance by cleaning roadways within two hours after a storm.
- We sustained overall pavement quality through a strategic approach that maximized the benefit-to-cost ratio.

SHA Structurally Deficient Bridges



Bridges

The Woodrow Wilson Bridge was SHA's first "mega" project. A mega project is a term used nationally by the Federal Highway Administration if the cost of a project is in excess of \$1 billion. The Woodrow Wilson Bridge Project includes replacing a major artery that was outdated and which intersects three different states. This project was conducted in partnership with Virginia and Washington, D.C. The project, being delivered on-time and within budget, is now 50 percent complete with southbound lanes open.

In fiscal year 2006 there were five major bridge projects completed:

- I-68, latex overlays in Garrett County
- SHA replaced two bridges along northbound and southbound MD 201 over the Amtrak railroad within Prince George's County
- Replaced MD 36 bridge in Allegany County over George's Creek
- Bridge painting to prevent rust of US 50 over the Severn River in Anne Arundel County

In addition to the above, SHA also replaced MD 136 over James Run to accommodate heavy trucks from the adjacent quarry.

Pavements

- The Asphalt Technology Division conducted a demonstration project to evaluate the use of warm mix asphalt technologies. This technology allows for the placement and compaction of asphalt mixes at cooler temperatures through the use of an additive to the mix that improves workability.
- The Hot Mix Asphalt (HMA) Pay Factor partnering team conducted efforts last year to revise the existing HMA specification to better measure the quality of materials.
- Completed a study with Morgan State University to evaluate the use of Maturity Meters, in-field instrumentation equipment used to measure the strength of newly placed concrete.

Construction contracts completed in FY 2006 accepted for maintenance in western Maryland were:

- Resurfacing and Safety Improvements on MD 53 from US 40 Alt. to MD 658 and on MD 658 from MD 53 to MD 49 in LaVale
- MD 51 - Resurfacing and Safety Improvements from West Third Street to Pennsylvania Avenue in Cumberland
- US 340 - Resurfacing and Safety Improvements from the Potomac River Bridge to the Frederick County Line
- US 40 - Resurfacing and Safety Improvements from East of Spickler Road to West of MD 63
- I-68 - Resurfacing and Safety Improvements from east of Pigs Ear Road Bridge to east of US 219

Completed a study with the University of Maryland to evaluate high early strength mix designs that could produce sound, durable concrete for patches constructed during evening closures at the following:

- MD 80 — From I-270 to Flint Hill Rd.
- MD 75 — Patch From Arlington Mills Rd to I-70
- MD 194 – Patch Shoulders & Slurry Seal from Carroll Line to MD 550
- MD 550 – Patch Shoulders & Slurry Seal Old Frederick Road to Clyde Young
- MD 85 – From Oland Rd. to MD 28

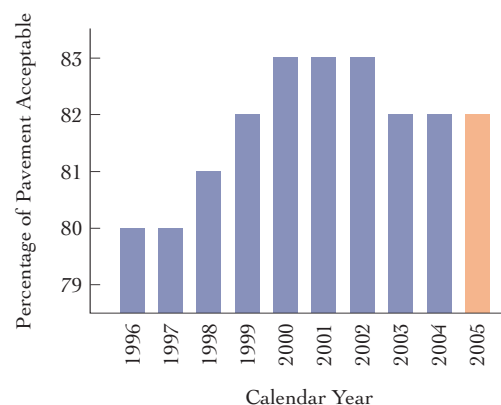
Repairs to aging roadways sometimes requires replacing sections of roads, a procedure called “Deep Patching.” SHA repaired the following roadways:

- MD 88
- MD 482 from MD 27 to Brillhart Mill Rd.
- MD 97— from MD 97 to Streaker Rd.
- MD 407
- MD 852G
- MD 30 — from MD 496 to the PA line
- MD 26 — from MD 27 to MD 2
- MD 108 – Guilford Rd. to MD 21
- MD 144A – MD 97 to Bushy Park Rd.
- MD 32 – MD 144A to MD 99
- MD 97 – Old Frederick Rd. to the Carroll County line

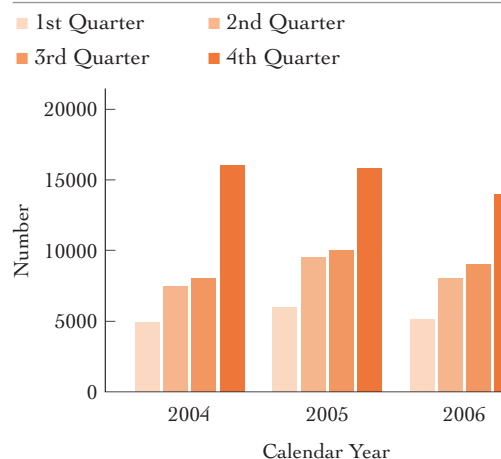
New OMT Friction Truck, used to measure the frictional resistance of a rubber tire to wet pavement

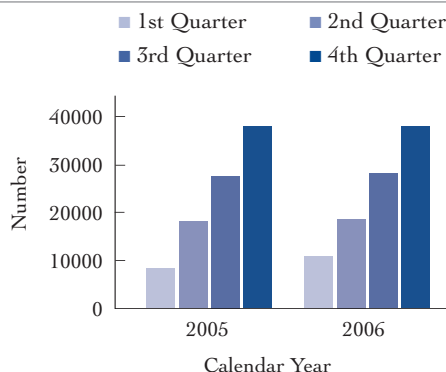


Ride Quality



Number of Miles Re-Striped



Number of Signs Repaired/Replaced

SHA constructed 1,477 linear feet of sidewalk under the MD Retro-Fit Sidewalk initiative last year



Resurfacing at SHA

This program allows the current infrastructure of state highways to be improved on a life cycle basis. Typical improvements may include milling, grinding, resurfacing, safety upgrades, ADA compliance and pavement markings. Projects under this program are carefully selected from a modeling system. The following projects were selected because of their roadway classification and the volume of traffic on them:

- District 1 - Wicomico County: US 13 Business from US 13 to College Avenue
- District 2 - Kent County: US 301 from MD 313 to Cecil County line
- District 3 - Prince George's County: I-495 from Greenbelt Road to Montgomery County line
- District 4 - Baltimore County: US 40 from Ebenezer Road to Days Cove Road
- District 5 - Anne Arundel County: MD 295 from MD 175 to MD 100
- District 6 - Washington County: US 340 from Frederick County line to the Potomac River Bridge
- District 7 - Howard County: I-70 from MD 27 to MD 97

Facility, Equipment and Communications Maintenance

Homeland Security Grants: SHA was reimbursed by the United States Department of Homeland Security for more than one million dollars of security-related projects associated with Office of Domestic Preparedness and Urban Area Security Initiative grant programs. These grants allowed SHA to perform communications improvements atop the World Trade Center in Baltimore to enhance interoperable regional communications and install CHART Closed Caption Television equipment along State routes in Harford County. Both projects were completed on time and expenditures were reimbursed by the Maryland Emergency Management Agency.

Facility Improvements:

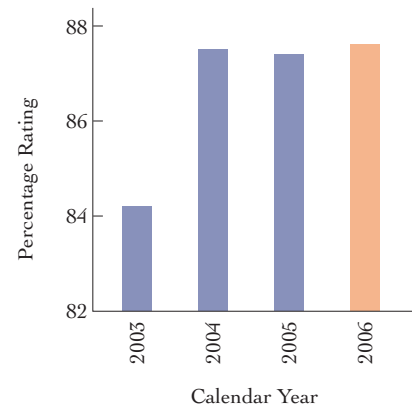
- Replacement of the fuel canopy at SHA Hanover maintenance facility
- Implemented the first Asset Management Contract for SHA at the I-95 northbound & southbound rest areas in Howard County.
- Installed a new public water and sewer system at SHA's LaPlata Shop
- Began construction of the new building at SHA's Hanover complex that will allow all of SHA's operations offices to be consolidated and centrally located

- Replacing and enlarging salt barns
- World Trade Center – New communications towers at the World Trade Centers in Baltimore and Frederick

Building and Maintaining Rest Areas at SHA

- Welcome Center in Emmitsburg replaced
- Renovated Cambridge Welcome Center
- Replaced Mountain Rest Areas
- Crain Highway – Roof replacement
- Pocomoke – New Sewer System
- Bay Country – HVAC upgrade, site improvement
- Friendsville – ADA improvements
- Sideling Hill – Water supply evaluation
- I-95 Rest Areas – HVAC improvements
- South Mountain – Well rehab
- The Cove – Roof replacement
- Pocomoke – New Pavilion
- Sailwinds – Renovations

Percentage of Customer Ratings of Rest Areas as "A" or "B"



Newly improved I-95 Rest Area in District 7



Highlights of our Accomplishments

- SHA paid more than 10% of our state contract expenditures to small businesses in FY 2006, making SHA one of the first State agencies to achieve this mandated goal since the inception of the Small Business Reserve program.
- Delivered our capital program well within 10% of the budget target for fiscal year 2006.
- Met annual operating and administrative budget targets.
- Received recognition among State agencies as one of the top five agencies for making timely payments of vendor invoices.

Collaboration is key at SHA.



Efficiency in Information Technology (IT)

SHA continued to make progress in applying information technology and updating IT procedures to create efficiencies.

- SHA employee history data was automated. This new procedure eliminated manual data entry and decreased duplicated efforts among the human resources offices and administrative chiefs.
- The reconciliation process for the inventory management system was automated, reducing that function from 40 hours per month to one hour per month.
- Successfully upgraded and converted the highway user revenue distribution system into Access automating all facets of the process. This new procedure reduced total work hours and increased the overall accuracy of outputs for 23 local governments and 154 municipalities that receive funds from SHA.
- Created electronic versions of key SHA forms which generated a cost saving by reducing the number of copies and increased turn-around time by eliminating manually mailed forms.
- SHA completed a five year IT strategic plan and implemented several of the major initiatives for the plan:
 - Formed an independent Office of Information Technology.
 - Successfully migrated 2,400 email accounts to Microsoft Outlook.
 - Completed a business enterprise architecture assessment that integrated 376 system applications.
 - Developed an IT steering committee that determines annual IT funding and projects.

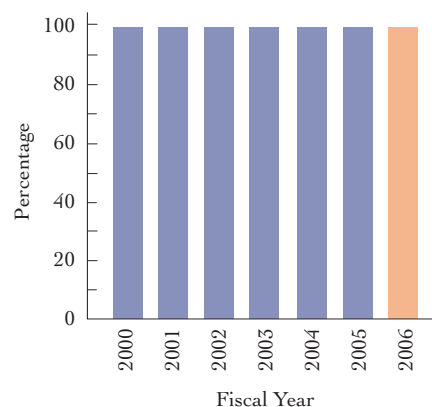
Efficiency in Financial Management

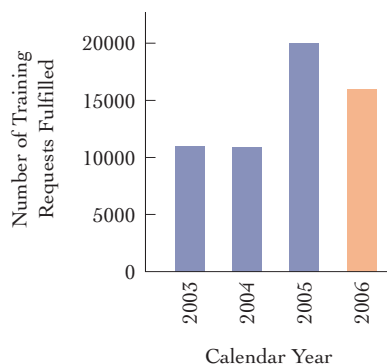
- SHA refines project design and uses cost sharing to maximize the use of State funds. Some examples include a \$15,000 savings by redesigning to avoid a utility pole and \$40,000 developer funds for guardrails needed to safely protect their lights adjacent to the road.
- Recovered nearly \$1 million from consultants for overhead audit adjustments, approximately \$290,118 of which was associated with the Woodrow Wilson Bridge Project.
- SHA identified and deactivated a total of 27 unused pagers, a yearly savings of approximately \$1,530.
- 109 managers were trained on their role in maintaining financial controls, bringing the total number of trained managers to 471 in the last two years.
- SHA increased the overall percentage of contracts awarded to Minority Business Enterprises (MBE) to 19%. This amounts to \$125,261,000 awarded to MBE firms.

Efficiency in Process Management

- Unveiled the Maryland Product Evaluation Listing (or M-PEL for short). The M-Pel site allows vendors to submit applications online for new products to be evaluated by SHA. The site is also used internally by SHA staff to manage the review and evaluation of the product.
- Conducted Internal Controls Assessment Audits for an additional 18 locations (total of 50 for FY 2005 and FY 2006). The main purpose of the audits is to ensure that basic internal controls are functioning at each SHA location for financial and procurement activities and to make recommendations to correct any weaknesses.
- Completed internal audits on a total of 133 contracts of which 109 were contract-related, eight were consultant and construction audits for the Woodrow Wilson Bridge Project and 16 were railroad and utility contract audits, most of which were federally funded.
- One of SHA's district offices focused on sustaining a five day turnaround time in reviews and approval of permits. The District achieved a 92% success rate in FY 2006.
- Met 100% compliance for the Dependent Verification Audit as mandated by the Maryland General Assembly.
- Processed \$590.6 million in contractor payments in FY 2006, exceeding last year's record total by \$76.8 million.

Percent of Invoices Paid On-Time Monthly
SHA is among the top 5 state agencies that met the statewide target by paying 98% of all vendor invoices within 30 days.



SHA University Training Classes*SHA Leadership at the Symbiosis Conference 2006*

Employee Development

SHA highly values and supports extensive employee training and development. This is a critical activity for sustaining a skilled workforce as our business needs change.

- Provided employer/employee relations (EER) Core Training to Appointing Authority Designees. This educates our employees on the main EER functions that they will use at some point in their managerial careers.
- 2005 Diversity Conference had 100 first-time attendees and more than 300 employees in attendance. SHA employees received credit for attending the conference to fulfill the mandatory Diversity Awareness requirement.
- The SHA University implementation team and sub-committees completed pilot curriculum for the school of engineering. In addition, the team developed draft curricula, a budget process, and a train-the-trainer program (for internal trainers) as part of the continuing efforts to implement a corporate University at SHA.
- Designed, developed and deployed a Student Learning Center which provides all SHA employees with online access (via the SHA intranet) to “real-time” information. Planning, scheduling and tracking learning activities is more convenient and efficient for employees by providing an online source to real time information.
- Twenty engineers from the Class of 2005 completed the Graduate Engineer Training Program requirements. This program is used to recruit sought-after engineers. This program is nationally acclaimed and modeled by other DOT’s.
- Completed the Project Management training of more than 150 employees through SHA’s partnership with the University of Maryland. This gives new engineers a chance to be mentored and improve their overall project management skills.
- Coordinated and provided training to more than 2,000 SHA employees in Transportation System Security Awareness. This training provided our personnel with the tools necessary to observe, identify and report suspicious objects, packages and activities to enhance the security of SHA’s infrastructure assets statewide. This initiative allowed SHA to become a full participant in the Transportation Security Administration Highway Watch program.

- In 2005, 67 supervisors and managers completed the LEAD program. The LEAD training program is a two-year leadership development program for selected middle managers.
- Conducted Limited English Proficiency (LEP) training for 2,476 SHA employees in order to more effectively serve SHA's non-English speaking customers.
- Conducted ethics training for 71 employees as part of an ongoing effort to ensure that key employees are aware of State Ethics Commission requirements and expectations.
- Stepping Into Success (SIS): Recruited, implemented and hosted OOA's administrative program entitled "Stepping Into Success!" for twenty-four participants in January 2005 and twenty-one participants in May 2006. This developmental two-year training program is the first of its kind, geared towards SHA's administrative, paraprofessional and professional employees. To date, twelve participants have taken a step towards their respective goals and have either been promoted or have changed their professional "course."

Stepping into Success Class

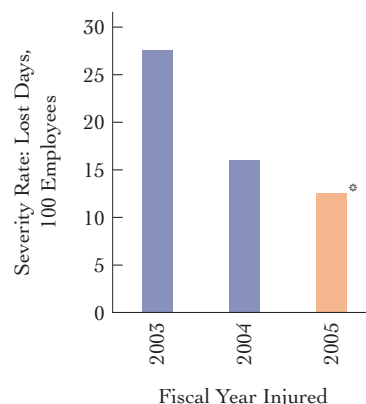


Efficiency in Workforce Management

- We made great strides last year to implement the position changes that have resulted from a major reorganization of the Office of Materials Technology. To date, we have filled 71 positions, are in the process of advertising an additional 41 positions and have 13 positions currently under study.
- Established the classification and grade level for the one procurement position that will be located in each maintenance shop and for the position that will be performing administrative duties in each shop.
- Exceeded the legislative mandate for the number of eligible employees permitted to telework. Presently, 130 SHA employees are permitted to telework, which constitutes 32% of our eligible workforce, exceeding the statewide goal by more than 20%.

Work Place Injuries

**Excludes days lost due to traffic crashes*



Internship Programs

- SHA increased efforts to recruit engineers. This included soliciting feedback on the recruitment/interview process; researching the civil engineering curricula at the ABET accredited colleges; using resume books from various colleges/universities; sending more than 350 direct emails to students with the qualifications that we seek; attending three engineering-specific college fairs; and, coordinating an “Externship” Program with the University of Maryland College Park for the Bridge Development and Highway Development Offices.
- Successfully maintained an average 30-day turnaround time on all employee reclassification actions.

Internal SHA Communications

- Participation in Customer Service Initiatives: Provided a monthly report of research expenditures to the Capital Program Division for monitoring Statewide Planning and Research cash flow.
- Several offices completed overhauls of the internal web pages on the SHA intranet.
- An “Employee News Flash Report” was started to improve internal communications. The first report was distributed electronically in May 2006. The Flash Report is sent out electronically via e-mail and placed on SHA’s intranet site. Each department is asked to print it out and post on local bulletin boards for employees without computer access to read. The flash reports contain current project updates, key accomplishments, events, up-to-date SHA news, policy changes, new initiatives and employee recognition.

Workforce Planning At SHA

SHA’s workforce challenges have approached a crisis situation. As one of 10 agencies audited by the Office of Legislative Audits in 2005, it was recognized that SHA’s workforce challenges are critical for several reasons. First, SHA has been hit hard by the state’s downsizing trend, losing 20% of its workforce over the past 20 years. In the next 10 years, 50% of SHA employees are eligible to retire. Many of these individuals are in core management positions. Furthermore, many of these people hold positions that are highly technical and/or unique to SHA. The knowledge they have accumulated during their years of State service is critical to sustaining the core mission of the agency. Finally, SHA faces stiff competition from surrounding states, counties and private industry for employees with advanced skills in engineering, finance, information technology and accounting that is making recruitment and retention for these skills extremely difficult and in some cases impossible.

SHA is ahead of the rest of the State of Maryland transportation modes and most departments of transportation across the country in comprehensive workforce planning and development. Several projects were underway in FY 2006 to address these issues:

1. Workforce needs assessment;
2. Succession planning program for maintenance personnel;
3. SHA University;
4. Curriculum for Highway Design;
5. A pilot for a community of practice in the traffic design area for knowledge management;
6. Initiated major revamping of leadership training programs;
7. Expanded recruitment efforts.

Additional resources are being identified where possible to sustain and expand these projects in anticipation of greater needs over the next 5 years.

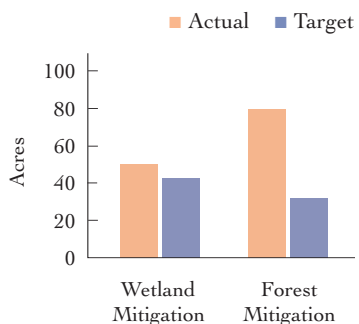
Highlights of our Accomplishments

- Continued to maintain 99% compliance with erosion and sediment control requirements during construction.
- Met all National Pollution Discharge Elimination System (NPDES) requirements.
- Met 100% of environmental commitments, based on results of project close-out meetings.
- Promoted Earth Month, SHA Spring Clean Up & Make A Difference Day with Adopt-A-Highway groups, resulting in retaining groups and recruiting new ones.

Highway Beautification Planted Wildflowers



SHA exceeded environmental mitigation requirements in FY 2006



Enhancing the Environment and Meeting Our Environmental Commitments

SHA's commitment to environmental stewardship is far-reaching, from planning new projects to constructing roads and maintaining all SHA facilities. Environmental Stewardship is one of the key performance areas identified in SHA's Business Plan, and focuses on the natural environment (wetlands, streams, wildlife, water quality, etc.) as well as the human environment. SHA approaches environmental stewardship strategically, with an agency-wide focus to enhance Maryland's communities and environment.

- Through our work on the ICC, SHA has demonstrated national leadership in streamlining the delivery of projects through collaboration to produce a project that is excellent in environmentally sensitive design, comprehensive environmental mitigation and innovative construction techniques.
- SHA was a leader in the Green Highways Partnership, a collaborative effort that includes federal agencies, several states, and the private sector to promote integrated approaches in key environmental areas such as watershed improvement, ecosystem management, and recycle/reuse. These concepts are being applied to the US 301 Waldorf Area Transportation Project and other projects.
- Unveiled "Context Sensitive Solutions for Work on Scenic Byways" and "Context Sensitive Solutions for the Maryland Historic National Road." The purpose of this guidance is to help project staff and other stakeholders understand the special qualities of byways and make decisions that will preserve and enhance these qualities.

Improving Water Quality

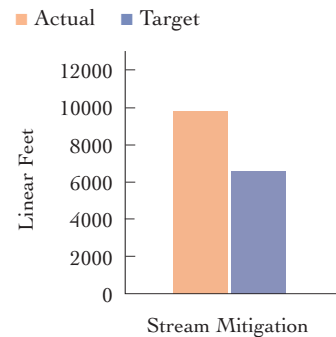
- SHA completed one of the longest single wetland and stream restoration projects in its history. This project transformed 30 acres of floodplain wetlands and streams in the Clarksburg Mitigation property in Montgomery County:
 - Enhanced five acres of existing wetlands
 - Preserved eight acres of wetlands
 - Restored 919 feet of stream
 - Provided 2,177 feet of plantings to eliminate a major gap in the Little Seneca Creek greenway
- Substantial effort was completed to improve water quality and aquatic habitat in the Hammond Branch floodplain. The project included removing concrete from the stream, constructing a rock wall to protect a water treatment pond from erosion, planting along 1900 feet of stream to establish a healthy floodplain and lowering the floodplain to protect adjacent properties from flooding during storms.
- The Transportation Enhancement Program (TEP) yielded environmental and community improvements through the use of available federal funds for non-highway types of improvements such as trails, bike paths, historic preservation, and environmental preservation and enhancement.
- Opened the Frederick Douglass/Isaac Myers Maritime Park and the Frederick Douglass/Isaac Myers Maritime Museum. The TEP paid for construction of the bulkhead and promenade and is part of the Baltimore Inner Harbor Waterfront Promenade.
- Ribbon-cutting of the Allegany Highlands Trail in Cumberland at the Western Maryland Railroad Station completing the 20-mile Maryland section of the "Great Allegheny Passage," a 193-mile trail connecting Pittsburgh, PA to Cumberland, MD and the C&O Canal Trail.

Landscaping and Highway Beautification

Highway beautification means improving the appearance of our highway network through landscaping, community planting, wildflowers and foresting programs. We work with people to determine types of flowers and re-forestation that the community will maintain after the project is complete.

- Planted 122 acres of wildflowers across State highways. The program was so successful that we received many positive calls and letters from area residents. This program took place in the spring.
- Installed and established landscape plants along westbound I-70 in

SHA exceeded environmental mitigation requirements in FY 2006



Opening of Frederick Douglass/ Isaac Myers Maritime Park & Museum



Ribbon Cutting of the Allegany Highlands Trail in Cumberland



Washington County from the Howard County line west to Hollow Road in Frederick County and MD 650 (New Hampshire Avenue) in Montgomery County.

Scenic Byways and Recreational Trails

SHA partnered with the Maryland Department of Business and Economic Development and the Maryland Department of Planning in conjunction with local and federal partners to unveil the Historic National Road and map of interpretive markers.

The map details 66 interpretive markers found along Maryland's portion of the Road, which runs from water's edge at Baltimore's Inner Harbor and travels to the Pennsylvania State line. The guide and markers encourage travelers to learn more about the history, culture and scenic beauty of many of Maryland's Main Street towns.

- In partnership with project sponsors, awarded and programmed \$1,059,670 in National Recreational Trails Funds for various projects.
- Awarded \$608,880 in National Scenic Byways Funds for various projects.

Happy Trails



Abating sound beautifully.



Sound Barrier Program

Initiated in the late 1970s, SHA retrofit sound barrier program addresses highway noise reduction for communities that were built before the construction of the adjacent State highway. Major noise barrier landscaping improvements FY 2006 include:

- I-97 Road in Prince George's County;
- I-495 (Capital Beltway) at Auth Road in Prince George's County.

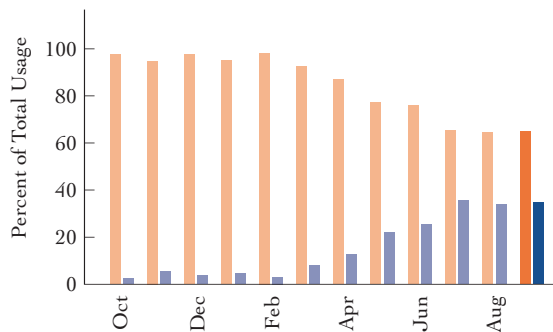
Environmentally Friendly Fuel Usage

SHA is committed to reducing our fossil fuel dependence.

- During FY 2006, SHA implemented an aggressive biodiesel program.
- Ten SHA locations started distributing biodiesel, which has amounted to approximately 35% of the total diesel usage by SHA vehicles and equipment.
- SHA also is expanding the use of mixed fuel. Currently, 75% of SHA fuel for gasoline-powered vehicles is 10% ethanol (E10). Efforts are being made to acquire vehicles that are capable of utilizing 85% ethanol (E85) fuel.

SHA Diesel Fuel Usage

■ Diesel ■ Bio-Diesel



October 2005–December 2006

Improving Roadway Drainage

SHA has a source of funding dedicated to provide drainage improvements Statewide as well as to meet NPDES requirements related to storm water and outfalls. In fiscal year 2006 the following projects made the greatest impact toward meeting the intent of this funding:

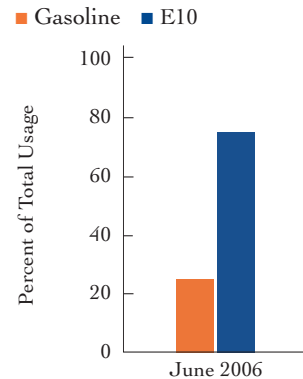
- Replaced drainage culverts on two sites along MD 85 to eliminate frequent roadway flooding and associated roadway closures.
- Stabilized the slope along the tributary of Roland Run adjacent to private property, I-695, and Charles Street in Baltimore County. Similarly, stabilized a tributary to the Patuxent River near MD 450 in Ann Arundel County.
- Emergency repair of a storm water management dam along MD 10. Prevented the failure of the embankment and protected the waters of Marley Creek from the threat of sediment pollution.
- Repaired severe erosion along I-270 near Middlebrook Road and redirected drainage away from the road.

Recycling and Anti-Litter

In 2005 SHA recycled 3,024 tons of regulated recycling material, and 89,000 tons of other material such as anti-freeze, asphalt, concrete, construction and demolition debris and industrial fluids, landscaping debris, scrap automobiles, scrap metal, sewage sludge, tree stumps and more.

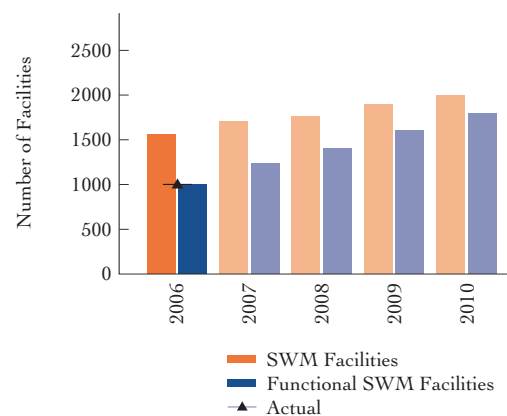
- SHA's recycling rate is 34%, consistently exceeding our statewide goal of a 20% recycling rate.
- Initiated the Keep Maryland Beautiful Anti-Litter Campaign.
- Promoted Earth Month, SHA Spring Clean Up & Make A Difference Day with Adopt-A-Highway groups, resulting in retaining groups and recruiting new ones.
- Picked up 546 bags of litter.

SHA Gasoline Fuel Usage by Percentage



Storm Water Facilities

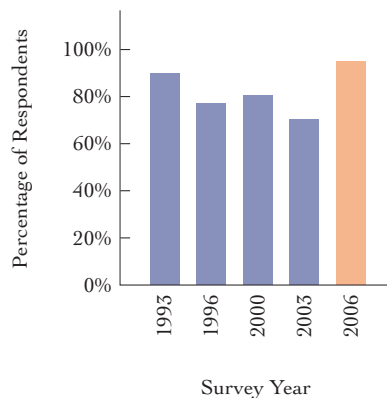
SHA strives to have 90% of all SHA facilities functioning as adequate by year 2010. Completed storm water and retrofit enhancements to 17 facilities and designed projects for an additional 18 facilities to be improved in Prince George's and Anne Arundel counties.



Highlights of our Accomplishments

- Began drawing a live feed of data from the CHART system for Regional Integrated Transportation Information System in December, 2005 to create a more seamless response to traffic incidents.
- Responded to more than 4,800 calls from the public. These calls come into SHA Headquarters each weekday for general information relating to all areas of SHA.
- Achieved a 95% rating on overall customer satisfaction based on a statewide external survey.

Customer Survey Satisfaction Results



Customer Focus

SHA emphasizes customer responsiveness with citizens on the road on a daily basis, with citizens, community groups and elected officials in the development of projects and with the driving public by providing travel information.

Through the CHART program, SHA provides roadside assistance for stranded motorists, assisting them in a variety of ways from getting off the road to a safe location, to changing tires and getting cars moving again. SHA workers on the road also assist homeowners that neighbor our roads with such services as keeping ditches clear of standing water and replacing signs damaged by crashes and or severe weather.

On projects, SHA reaches out to the public early in the process, producing better projects with greater community support. Maryland's practice is to exceed State and federal regulatory requirements. This is important for both small neighborhood improvements and large projects. Maryland is a national leader in context-sensitive design of projects; working with the public to identify local needs and values and developing projects that improve transportation in concert with the surrounding communities.

Sharing Expertise

- SHA hosted nine groups of visitors from around the world, including Poland, Norway, China, Estonia, Japan and Finland.
- Hosted the "Western Hemisphere Kickoff Workshop" on September 19 through 22, 2005 during which participants came from Honduras, Chile, Columbia, Brazil, Panama, Argentina and Mexico.

Customer Response

- Responded to more than 25 major incidents, providing hundreds of live and taped interviews to the media.
- Staffed the Emergency Operations Center more than 24 days and nights (occasional 24 hour shifts).
- Participated in a joint initiative supporting inter-modal transportation management.
- Upgraded TOC and SOC equipment to support access to all emergency service radio towers in the State.
- Improved SHA's ability to respond to citizens with limited proficiency in English by training SHA employees in how to communicate with these individuals.
- Worked with Maryland State Police (MSP) to develop outreach materials for AMBER (America's Missing: Broadcast Emergency Response) Plan Program awareness.
- Finalized procurement of a Mobile Command Unit for the Maryland State Police to be integrated within CHART.
- Responded to a major incident on I-95 and opened traffic in time for the Thanksgiving rush.
- The "SHAADMIN" customer service email box alone responded to 5,000 emails. During 2006, the Administrator's Office also responded to more than 1,400 hard-copy letters.

Industry & Community Outreach

- SHA's construction EXPO conference was a huge success in FY 2006. More than 550 SHA employees and consultants attended the conference. Evaluation ratings were excellent as were many of the comments and suggestions.
- SHA employees met with 480 area students to educate against the dangers of drinking and driving in an effort to reduce the number of alcohol-related car accident fatalities. This initiative was a joint effort between SHA, Maryland State Police, Mothers Against Drunk Driving (MADD) and Anne Arundel County Police. The effort shared with 480 junior and senior class members the experience of driving while being intoxicated using Fatal Vision Goggles and experiencing a crash at 5 mph using a seatbelt "Convincer."

*CHART Emergency Response Units
clearing traffic*



Engineering Career Day



Career Day

- SHA coordinated, supported and participated in Emergency Management Assistance Compact (EMAC) missions to the Gulf Coast during the Summer of 2005. Operations included transportation of emergency equipment to New Orleans and traffic signalization equipment repair support to the State of Mississippi after Hurricane Katrina, and the state of Florida after Hurricane Wilma. The Maryland Emergency Management Agency (MEMA) reimbursed expenditures that were in excess of \$220,000 associated with these activities.
- Hosted “Make A Difference Day” to thank the Adopt-A-Highway groups in Charles County who volunteer their time to keep our roads litter free. This event occurs in partnership with the Maryland State Police, the LaPlata Volunteer Fire Department, the Bad Boyz Street Riders Club, Riders IV Life, and Lady Hawk Motorcycle Clubs.
- SHA hosted a Blood and Donation Drive to support the National Disaster Relief Fund for the victims of Hurricane Katrina.

Media Relations*Statewide Operation Center (SOC)*

- Managed nearly 2,000 media calls about SHA projects, safety initiatives and programs; an additional 675 media calls related to winter weather; five Freedom of Information Act requests from the media.
- Hosted SHA’s annual Snow Show at the Statewide Operations Center. Excellent attendance by employees and members of the media resulted in 12 positive stories.
- Managed an awareness campaign about the upcoming closure of MD 115 in Rockville. The project included a brochure, media coverage and resulted in minimizing complaints from citizens.
- Conducted six media training classes for more than 75 SHA employees.
- Produced and distributed “Moving Maryland – ICC 2005” cable television show.
- Produced “Buckle Up Maryland” television PSA with crash survivor David Wiley and Former Governor Ehrlich, as well as the “Maryland Remembers” drunk driving victim television PSA.

SHA is well underway with our approach to performance-based management. Performance Excellence integrates and improves upon former activities such as business planning, Managing for Results and Total Quality to achieve our vision for “Excellence in all we do.” This vision is modeled on the Baldrige Criteria for Performance Excellence that embody the critical characteristics of high-performing organizations. SHA’s vision for Performance Excellence is structured around the following five areas, in which this year’s accomplishments are highlighted below.

Leadership

- SHA’s top managers are committed to sustaining the solid management style that SHA is known for, while being actively engaged in continuously improving.
- Agency-wide teams were created to share best practices and monitor implementation for all five areas of Performance Excellence.
- Individual work plans were implemented for multiple levels of management to increase manager accountability.
- A Department-wide team was initiated by SHA to revise the employee appraisal process to be performance-based.
- Implemented the use of SHA’s Leadership Competencies in the creation of annual professional development plans for managers.
- Piloted an executive leadership program for AASHTO’s new Leadership Institute curriculum.

Business Planning and Performance Measurement

The SHA Business Plan is the cornerstone to achieve the vision for Performance Excellence. It focuses on measuring progress on SHA’s key outcomes and supporting processes. It is regularly updated by the Senior Management Team and reviewed by top SHA Leadership on a quarterly basis. In FY 2006, the following improvements were made to this process:

- Engaged the majority of the Senior Management Team in a strategic planning approach to the development of the SHA Business Plan within each of the six key performance areas: safety; mobility; environmental stewardship; system preservation and maintenance; organizational effectiveness and customer communications, satisfaction and service.
- Developed and delivered facilitated workshops for office and district management teams in assessing strategic issues and learning how to use business plans as a management tool.
- Upgraded the documentation and quality control procedures for all the performance data associated with SHA’s Managing for Results report to the Department of Transportation and the Department of Budget and Management.

Process Improvement and Management

SHA uses the Baldrige Criteria for Performance Excellence to perform self-assessments of our organization down to the level of individual offices and districts. The Baldrige Criteria roll up into each of the five areas of the SHA Vision for Performance Excellence. In FY 2006:

- All SHA offices and districts were brought into the self-assessment cycle of using the Baldrige Criteria for Performance Excellence. Numerous opportunities for improvement were identified, and action plans were created to address the highest priority process improvement needs.
- An SHA-wide self-assessment was initiated, building on the self-assessment work done in the offices and districts.

Workforce Planning and Development

SHA's workforce challenges are reaching a crisis proportion with a large number of employees eligible to retire. While the group of individuals being trained for these positions is well-qualified, the number and level of experience is smaller than ever. This is leaving SHA vulnerable to a loss of key institutional knowledge. The following activities were completed in 2006 to begin to address these issues:

- Initiated a Succession Planning Program that will prepare employees to compete for a series of middle-level management positions that are reaching a critical number of potential retirements.
- Completed an assessment of SHA's workforce in support of broader workforce planning activities that are occurring throughout SHA.
- The Senior Management Team assessed SHA's Workforce Planning priorities and reached a consensus that recruitment/hiring, workload, salaries and employee development are critical issues to be addressed. Several projects/process improvements are to be completed in FY 2007 as a result.
- Completed a Knowledge Management Strategic plan and initiated the first pilot Community of Practice for the Traffic Engineering discipline. This topic was chosen for several reasons including the fact that core knowledge is retained by individuals eligible to retire.
- Initiated revisions to SHA's Leadership program to realign the curriculum in accordance with the vision for Performance Excellence.

Customer Communications, Satisfaction and Service

SHA has always had a high standard of customer service to the citizens of Maryland. The Performance Excellence approach is looking to bring this to a higher level, in line with the current state-of-the-practice in other states. This year we:

- Completed the statewide biennial customer satisfaction survey. The survey was designed using external focus groups of customers from various parts of the state.
- Completed an assessment of internal communication issues that will ultimately need to be addressed to improve overall service to external customers.
- Partnered with the Schaefer Center for Public Policy on the Annual Public Policy Survey in regard to citizen perspectives on highway safety policy issues such as impaired driving penalties.



Martin O'Malley - *Governor*
Anthony G. Brown - *Lt. Governor*
John D. Porcari - *MDOT Secretary*
Neil J. Pedersen - *Administrator*

Maryland State Highway Administration
707 North Calvert Street
Baltimore, Maryland 21202
1-800-206-0770